



FY 2004 President's Request

Invasive Species Initiative

Addresses

NOAA Mission Goal #1

**Protect, restore
and manage use
of coastal and
ocean resources
through
ecosystem
management
approaches**

What is requested?

NOAA requests an increase of \$1.0 million to develop alternative technologies for the treatment of ships' ballast water to eliminate the potential for invasions of non-indigenous marine species in U.S. and other waters; to set up a nationally coordinated monitoring system for aquatic nuisance species focusing on marine protected areas, particularly National Marine Sanctuaries, Estuarine Research Reserves, and areas vulnerable to invasion such as ports, harbors, and embayments; and to implement an Invasive Species Control and Habitat Restoration initiative through testing of control mechanisms and restoring native species and habitat conditions in invaded ecosystems.

Why do we need it?

Millions of dollars are spent each year to mitigate the effects of non-indigenous aquatic species that have invaded our coasts and Great Lakes and to prevent new invasions. Ballast water is currently the most significant vector for introduction of non-indigenous species into U.S. coastal waters. Ballast water is pumped into the hull of a ship to add weight and improve the stability of the vessel. When the ship comes to port, it pumps out ballast water to balance the ship as it unloads cargo. Organisms can be unintentionally transported from port to port within the ballast water of the ship. Over two-thirds of recent non-native introductions in marine and coastal areas are likely due to ship-borne vectors, of which ballast water is the primary vector. Under the Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990, NOAA has a mandate to prevent, detect and monitor, and control aquatic nuisance species. In addition, NOAA has specific responsibility for research and education activities and shares administrative responsibilities for the Aquatic Nuisance Species Task Force. Following from the growing environmental need and the mandate for NOAA to address the growing problem of aquatic invasive species, the NOAA FY2004 initiative will tackle the most pressing issues for invasive species control and prevention.

Invasive Species Initiative At-a-Glance

What: \$1.0 M increase
Why: Millions of dollars are spent each year to mitigate the effects of invasive species in our coasts and Great Lakes.

Office of Oceanic & Atmospheric Research, Ocean, Coastal and Great Lakes Research, Other Partnership Programs



What will we do?

NOAA Research will implement a competitive grants program through the National Sea Grant College Program to develop alternative technologies for the treatment of ships' ballast water. Research and testing is coordinated with the Maritime Administration, U.S. Coast Guard, Environmental Protection Agency, Fish and Wildlife Service, and the Office of Naval Research. Annual training workshops will help track the progress of this research as Principal Investigators are invited to present their findings and suggestions for future research directions. A second workshop each year will target a more focused issue related to ballast water technology development.

The National Ocean Service will set up a nationally coordinated monitoring system for aquatic nuisance species focusing on marine protected areas. As a first step in developing this program, NOAA will establish a common protocol to monitor habitats ensuring standardization, archiving, and quality assurance of data. Initial surveys will establish the baseline data. Future surveys will allow for analysis of observed changes.

The National Marine Fisheries Service will address the habitat effects of invasive species, specifically invasive species control and habitat restoration. A combination of control methods and restoration, in conjunction with persistent monitoring and prevention measures, will result in effective habitat restoration in most cases. The NOAA Restoration Center will implement an Invasive Species Control and Habitat Restoration initiative through testing of control mechanisms and restoration of native species and habitat conditions in ecosystems that have been invaded.

What are the benefits?

This effort will enable NOAA to provide a combination of control methods and restoration in conjunction with persistent monitoring and prevention measures. In many cases, this will result in effective restoration of habitats in invaded ecosystems to the direct benefit of the aquatic resources that depend on those habitats, as well as a reduction in the number and impacts of future invasions.

Development of new ballast water management technologies to prevent invasions is also likely to benefit the shipping industry and those whose livelihoods are tied to maritime commerce. The Great Lakes region and several western states have laws requiring ballast water management for ships entering their waters. The Commandant of the Coast Guard told a scientific conference recently that they anticipate that ballast water management requirements will soon become mandatory nation-wide. Without new ballast water management technologies, current and upcoming requirements will be very difficult for ships to meet.

For more
information:

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Invasive Species Initiative

Non-Indigenous
Aquatic Species



Office of Oceanic and Atmospheric Research
Ocean, Coastal and Great Lakes Research
Other Partnership Programs

NOAA Budget
FY 2004
Change

Invasive Species
Initiative
\$1.0M